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user to wait for any desired conditions and respond with higher priority in the program flow. User programs can be additionally loaded into the user levels of the running level model.

A "Version With Marked Changes Made" is submitted
herewith.

IN THE CLAIMS:

Cancel claims 1-3.

Add the following new claims 4-6:

- sub B1
A2
4. A method of programming cyclical machines, in particular production machines, having an industrial controller, comprising the steps of: providing the industrial controller with a runtime system, said controller having prioritized running levels and tasks, with at least one sequential running level being created;
- formulating a machine sequence in a sequential program;
- said sequential program including specific mechanisms that enable a waiting for condition to be satisfied to be carried out with high priority and after the waiting for condition has been satisfied, to carry out the subsequent program sequence with high priority up to a defined user-programmed end, the running levels being assigned system and/or user programs; and
- utilizing said sequential program in said controller.

5. The method of programming according to claim 4, wherein the running levels are created from system levels and/or user levels.

6. The method of programming according to claim 4, wherein the running level model is clocked and wherein the basic clock may be derived from any of an internal timer, an internal clock of a communication medium, an external device or a variable which belongs to the technological process

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